

## FLAXSEED POWDER AND ITS POTENTIAL UTILIZATION IN THE FORMULATION OF VEGAN CHOCOLATE

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### ABSTRACT

Flaxseed is rich source of omega-3 fatty acid, alpha-linolenic acid, dietary fiber and it also possess heart-healthy effects. During past two decades consumer demand for vegan food products has increased considerably leading to new innovative and natural vegan products. Therefore, Flaxseed powder can be used as potential ingredient and an alternative option for milk powder to formulate vegan chocolate. The present study aims to investigate the formulation and quality evaluation of vegan chocolate formulated with Flax seed powder. The Flaxseed vegan chocolate samples were formulated with differing Flaxseed ratios (0-30%) with varying levels of cocoa powder (15, 20, and 25%) and standard quantity of coconut oil and Palm sugar. The formulated chocolates were evaluated for nutritional quality, sensory attributes, and total microbial load. The average calories derived from chocolate increased exponentially as the Flaxseed content increased. The maximum (452.6 Kcal) was found in vegan chocolates formulated with 30% Flaxseed and 25% cocoa powder. Furthermore, the Flaxseed chocolate also possessed the maximum protein (6.49g), dietary fiber (5.31g) and ash (1.66%) content. With respect to sensory attributes, the mean sensory score of variation formulated with 30% Flaxseed and 25% cocoa powder scored maximum overall acceptability and tasted very similar to control sample formulated with cow's milk powder. Therefore, it can be concluded that vegan chocolate formulated with 30% Flax seed and 25% cocoa powder alongside other ingredients can be considered for the manufacturing of good quality Flaxseed vegan chocolate at a commercial scale.

**KEYWORDS:** Flax seed, Cocoa powder, Vegan chocolate, Brown sugar, Lactose Intolerance.